

We claim:

1. An array encoding system comprising
5 at least one input for receiving a high definition digital video data stream,
a stat mux controller capable of processing the at least one input,
a plurality of array encoders responsive to commands from the stat mux controller for processing the high definition digital video data stream, and
10 an output for providing processed high definition digital video data.
2. The array encoding system of claim 1 wherein the processed high definition digital video data stream is substantially H.264-compliant.
- 15 3. The array encoding system of claim 1 wherein the system is scalable.
4. The array encoding system of claim 1 wherein at least some of the plurality of array encoders includes a video analyzer for evaluating the complexity of the input.
20
5. The array encoding system of claim 4 wherein at least some of the plurality of array encoder includes a plurality of video encoders.
6. The array encoding system of claim 5 wherein at least some of the
25 plurality of array encoders includes a video splitter for directing the input to one or more of the plurality of video encoders.
7. The array encoding system of claim 1 wherein the high definition digital video data stream includes audio data.
30
8. An array encoding method for processing high definition digital video data to generate an output data stream which is substantially consistent with the H.264 video communications standard comprising the steps of
receiving a high definition digital video data stream,
35 analyzing the complexity of the data stream ,
splitting the data stream into a plurality of subsidiary data streams in accordance with a predetermined criteria,

processing each subsidiary data stream in accordance with an applicable encoding technique appropriate for encoding an H.264 compliant output, and

5 combining the plurality of processed subsidiary data streams.

9. The array encoding method of claim 8 wherein the high definition digital video data stream includes audio information.

10 10. The array encoding method of claim 8 wherein the analyzing step includes extracting information relating to the complexity of the high definition digital video data stream.

11. The array encoding method of claim 10 wherein the complexity
15 information includes at least one of the group comprising spatial complexity and temporal complexity.

12. The array encoding method of claim 8 wherein the predetermined criteria includes at least one of the group comprising spatial mode criteria and
20 temporal mode criteria.

13. The array encoding method of claim 8 wherein the combining step includes appending applicable H.264 information.

25 14. The array encoding method of claim 8 further including the step of adjusting bit rate information in accordance with the complexity of the high definition digital video data stream.

15. The array encoding method of claim 14 wherein the step of adjusting
30 bit rate information includes controlling the encoding process and the combining process.